DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claims 1, 5-6, 8, are rejected under 35 U.S.C. 103(a) as being unpatentable over Brouard et al. (US Pub. No. 2002/0163501) in further view of Ando (US Pat. No. 5, 109,279), Gyarmati et al.(US Pat. No. 5,777,684), and Spilo et al (US Pat. No. 5,543,822).

In re claim 1, 8, Brouard et al. discloses taking video data and 2D graphics and scaling up the video data which is finally merged together in the final part (Fig. 1). It is noted that Brouard et al. does not explicitly disclose separating the information into nontext bitmaps and text information bitmaps. However, Ando discloses separating the teletext information from the video images (Column 1, line 58 to Column 2, line 17). It is also old and known that teletext can be contained in bitmaps (US Pat. No. 5,777,684, Column 4, lines 9-18) and as video being in contained in bit maps (US Pat. No. 5,543,822, Column 2, line 61 to Column 3, line 17). It would

have been obvious to one of ordinary skill to combine the up scaling device of Brouard et al. with the separating of video from teletext of Ando using the bitmaps of Gyarmati et al. and Spilo et al. with the motivation of not degrading the captions when up scaling video.

In re claim 5, Brouard et al. discloses taking video data and 2D graphics and scaling up the video data which is finally merged together in the final part (Fig. 1) and discloses classical up scaling techniques such as pixel interpolation [0022]. It is noted that Brouard et al. does not explicitly disclose separating the information into nontext bitmaps and text information bitmaps. However, Ando discloses separating the teletext information from the video images (Column 1, line 58 to Column 2, line 17). It is also old and known that teletext can be contained in bitmaps (US Pat. No. 5,777,684, Column 4, lines 9-18) and as video being in contained in bit maps (US Pat. No. 5,543,822, Column 2, line 61 to Column 3, line 17). It would have been obvious to one of ordinary skill to combine the up scaling device of Brouard et al. with the separating of video from teletext of Ando using the bitmaps of Gyarmati et al. and Spilo et al. with the motivation of not degrading the captions when up scaling video.

In re claim 6, Brouard et al. discloses taking video data and 2D graphics and scaling up the video data which is finally merged together in the final part (Fig. 1) and discloses rendering the video and rendering the 2D graphics (Fig. 1, 104, 110). It is noted that Brouard et al. does not explicitly disclose filtering the information into nontext bitmaps and text information bitmaps. However, Ando discloses filtering the teletext information from the video images (Column 1, line 58 to Column 2, line 17). It is also old and known that teletext can be contained in bitmaps (US Pat. No. 5,777,684, Column 4, lines 9-18) and as video being in contained in bit maps (US Pat. No. 5,543,822, Column 2, line 61 to Column 3, line 17). It would have been obvious to one

of ordinary skill to combine the up scaling device of Brouard et al. with the separating of video from teletext of Ando using the bitmaps of Gyarmati et al. and Spilo et al. with the motivation of not degrading the captions when up scaling video.

4. Claim 2-3, 4, 9-10, are rejected under 35 U.S.C. 103(a) as being unpatentable over Brouard et al. (US Pub. No. 2002/0163501) in further view of Ando (US Pat. No. 5, 109,279), Gyarmati et al.(US Pat. No. 5,777,684), and Spilo et al (US Pat. No. 5,543,822), and Lippincott (US Pat. No. 6,724,948).

In re claim 2, 4, 9-10, it is noted that Brouard et al, Ando, Gyarmati et al., and Spilo et al. do not disclose a luminance plane. However, Lippincott discloses up scaling using the luminance planes (Column 4, lines 6-22). It would have been obvious to one of ordinary skill to combine the separating and up scaling of Broard et al., Ando, Gyarmati et al., and Spilo et al. with the up scaling technique of Lippincott with the motivation of using another up scaling technique.

In re claim 3, Brouard et al, Ando, Gyarmati et al., and Spilo et al. disclose the input of the intermediate non-text bitmap (Fig. 1, 105, as the input is an up scaled version of the intermediate non-text bitmap). It is noted that the Brouard et al and Ando do not disclose a luminance plane. However, Lippincott discloses up scaling using the luminance planes (Column 4, lines 6-22). It would have been obvious to one of ordinary skill to combine the separating and up scaling of Broard et al., Ando, Gyarmati et al., and Spilo et al. with the up scaling technique of Lippincott with the motivation of using another up scaling technique.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Acharya (US Pub. No. 2003/0021486) discloses image scaling. Kurzweil et al. (US Pat. No. 5,212,551) discloses separation of the video audio and teletext.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHARLES FAN whose telephone number is (571)270-3550. The examiner can normally be reached on mon- fri 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Xiao Wu can be reached on (571)272-7761. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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